

# Complex Questions Promote Complex Thinking

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Intermediate-grade students will answer complex questions—  
if we ask them!

## Sophisticated Demands

One of the major impacts of the Common Core State Standards for Reading is the expectation that all our students will be able to show deep understanding of complex texts. Pearson (2013) suggested that in order for students to be able to read increasingly challenging texts in sophisticated ways, teacher scaffolding is critical. Researchers (i.e., Block & Pressley, 2002; Taylor, Peterson, Pearson, & Rodriguez, 2002) have suggested that a crucial component of reading instruction is individual time for teachers and students to interact. Ivey and Baker (2004) argued that teachers need to work with individual students “in the midst of reading to facilitate their perseverance and understanding” (p. 38).

For many years, we have worked with intermediate-grade teachers on interacting with students during reading conferences and as part of guided reading in just these ways. We have seen that with time, administrative support, peer discussions, and coaching, teachers in almost every classroom context can successfully carve out time for small-group or individualized reading instruction as a complement to their whole-group practices. However, our assumption that high-level interactions would emerge once those small-group or one-on-one interactions were prioritized turned out to be incorrect. We noted that many teachers, although comfortable with the instructional format, were still unclear about what they should say during these interactions with students.

## Teacher Questioning

We have observed that teachers often prompt students with questions focused on skills such as decoding, word recognition, or sentence-level comprehension and less frequently ask questions that encouraged deep thinking. This observation is

supported by Schoenbach, Greenleaf, and Murphy (2012), who noted that older struggling readers are often asked to work on decoding and phonics in spite of the fact that they are far more likely to have comprehension challenges. In addition, educators often distinguish between questions that demand only literal comprehension from those that demand higher order thinking, noting the importance of asking more cognitively demanding questions (e.g., Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956; Blosser, 1995; Harvey & Goudvis, 2007; Williams, 2010). Fisher, Frey, and Lapp (2010) pointed out that we cannot possibly determine students’ capacity for synthesizing or evaluating information if we continually ask only knowledge-level questions. Given this understanding, it is incumbent on teachers to be intentional about designing interactions that enable them to ask the kinds of questions that will promote deeper comprehension of texts.

## Continuum of Questioning Complexity

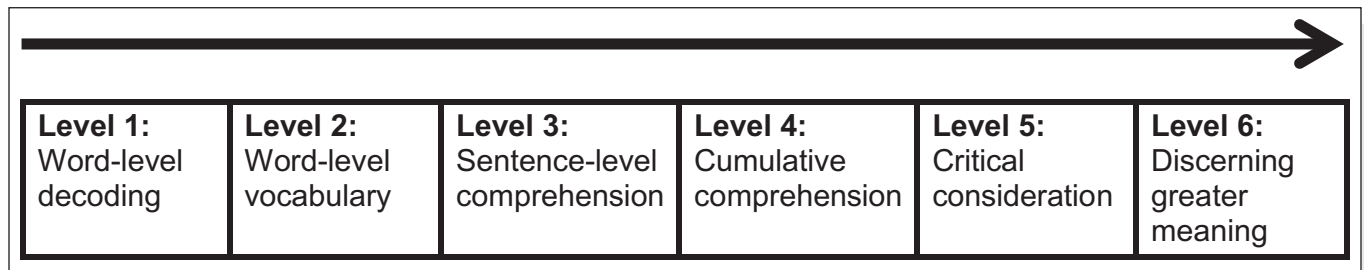
To scaffold teacher understanding of what complex interactions around text might look like in grades 4–6, we devised a Continuum of Questioning Complexity (see Figure 1). There are six levels on the continuum, and in this section we provide brief definitions of each:

- *Level 1: Word-level decoding:* Teacher prompts student to use a strategy (such as chunking a multisyllabic word) to assist with decoding.

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**Figure 1**  
**Continuum of Questioning Complexity**



- *Level 2: Word-level vocabulary:* Teacher asks student to use a vocabulary strategy to define an unknown word.
- *Level 3: Sentence-level comprehension:* Teacher asks student a factual comprehension question that can easily be answered by referring back to the text.
- *Level 4: Cumulative comprehension:* Teacher ascertains whether student has made meaning across the text by asking for an overview of what he or she has read so far.
- *Level 5: Critical consideration:* Teacher asks student to critically engage with the text, to analyze or critique.
- *Level 6: Discerning greater meaning:* Teacher asks student to consider how the reading fits in with his or her larger understanding of the world around him or her.

In essence, this continuum suggests that the complexity of intellectual engagement with the text is not held within the text itself but, instead, in the demands placed on the reader by the teacher's questions. A teacher may work with a student on an extremely challenging text but not require deep engagement with it. Further, it seems to be the teacher's questions that cue higher or lower levels of sophisticated consideration of the text.

We have found that teachers often ask questions that correspond with levels 1–3 on our continuum. Although decoding and defining words and citing textual details are all essential skills, they in no way cover the complexity of reading (Schoenbach, Greenleaf, Cziko, & Hurwitz, 1999). Although some students in the intermediate grades do need decoding support, that work should not preclude our efforts to engage students in complex interactions with texts (e.g., Schoenbach et al., 2012). Indeed, all intermediate-grade students will benefit from

vocabulary instruction, but again, this is most effectively placed elsewhere in the literacy block so as to make deliberate space for instruction in comprehension during individualized interactions.

We ask the teachers we work with to focus their conversations during small-group or individual comprehension work on level 4–6 questions. As these questions can be quite challenging to students, especially as we first begin to ask them, we believe that this kind of work is best done in a setting where teachers can provide individualized scaffolding.

In the next section, we describe levels 4–6 in greater detail. Note that distinctions between these levels may blur at times. The particular level at which a teacher focuses is not nearly as important as the idea that the teacher is focusing on meaning making and applying knowledge rather than word-level concerns or restatement of specific details. Teachers use what they know about the student and the text to determine the type of question to ask.

## Description of Levels 4–6

### *Level 4: Cumulative Comprehension*

Even when students can answer factual questions, they may not be able to draw deeper meaning from those facts. Teachers need to determine if students are linking facts together and keeping their concentration across the text. To do so, teachers may ask students to paraphrase and verbally annotate a piece of the text to get insight into their ability to express cumulative comprehension. A student reading a text on the American Revolution may be able to recite isolated reasons for the actions of the loyalists or patriots. No matter how challenging the text, this is a relatively straightforward task. A more complex task would be to see if that student could hold and synthesize multiple reasons in her mind, even when they are from more than one place in the text.

### Level 5: Critical Understanding

Whereas level 4 questions probe a student's ability to make meaning across a text, level 5 questions ask a student to apply the knowledge learned. A teacher who works with a student on critical understanding of a text is helping the student see that an important outcome of reading is new understanding that extends what one previously knew. A teacher might ask a student to evaluate an argument or compare an idea in one text with an idea gathered elsewhere. The student who demonstrated that she was able to retain and connect information over the course of a text might be prompted to consider whether the loyalist argument was valid. As many students will naturally side with the patriots, it would be a new learning opportunity to use text evidence to reconsider that perspective.

### Level 6: Discerning Greater Meaning

When students can make sophisticated meaning over the course of a text (level 4) and apply it to previous knowledge or critique it thoughtfully (level 5), they may be ready to figure out how the text fits in with the rest of the world. Why is it important, the teacher might ask, to learn about global warming or

new insurance regulations or to read a review of a film such as this one? Why do we still care about this war between the colonists and the British? Only with very careful thought and deep textual understanding can students answer such questions, demonstrating that they are able to view this text as situated in the world in which they and the text reside.

## Examples of Teacher Questioning Across the Continuum

Table 1 provides examples of questions the teacher might ask at each level after listening to a student read the following excerpt.

Sports are **embedded** in American schools in a way they are not almost anywhere else in the world. Yet this fact rarely comes up in conversations about why America **lags** behind other countries academically. More than 20 nations have better high school graduation rates. And while sports do have many benefits—providing exercise, lessons in perseverance, school spirit, and just plain fun—the emphasis on sports has gone too far. (Ripley, 2014, p. 10)

The interactions in the first three levels, although instructive, are not focused on complex meaning

**Table 1**  
**Examples of Teacher Questions Across the Continuum of Questioning Complexity**

Level of complexity	Description	Example teacher question
Level 1: Word-level decoding	Focus on accuracy of oral reading	"I heard you pronounce this word [ <i>perseverance</i> ] as 'persiance.' Is that a word you recognize? No, I didn't think so. Let's try chunking this word to figure out what it really says."
Level 2: Word-level vocabulary	Focus on the meaning of a word or words in context	"Do you know what this word [ <i>embedded</i> ] means? What vocabulary strategy that we have learned might help you figure out the meaning of that word?"
Level 3: Sentence-level comprehension	Focus on recall of literal details	"How many nations have better high school graduation rates than America?"
Level 4: Cumulative comprehension	Focus on comprehension across multiple portions of text	"Can you tell me what this writer thinks are the pros and cons of sports in schools?"
Level 5: Critical understanding	Focus on understanding a concept and critically examining it	"Based on what you've read, what do you think would be the downside of removing sports from American schools?"
Level 6: Discerning greater meaning	Focus on relating this text to the world in which it resides, including other texts or concepts not present in the text	"How do you think this discussion of sports in American schools may be different from the discussion of high school sports in other countries? What is it about Americans that makes that discussion different?"

making the way the interactions in levels 4–6 are. Although it is tempting to help students with word-level or sentence-level concerns during these interactions, doing so often keeps us from asking students to think more deeply about the meaning of the text.

Here, we present two examples of interactions between a teacher and a student reading an article together that further demonstrate this point. The following is an excerpt from the article.

YouTube hosts millions of clips of people, many of them kids and young adults, attempting wild, dangerous, and downright stupid stunts. The videos are often inspired by shows like *Fear Factor*, *Stunt Junkies*, and *Wipeout*, and they feature pretty much any hazardous activity you can imagine: playing with fire, “surfing” on top of moving cars, soaring off flimsy homemade ramps on bikes and skateboards, shooting people point-blank with paintball guns.

Some experts say that by hosting these videos, YouTube encourages young viewers to take deadly risks. Research by the Centers for Disease Control and Prevention shows that more than 180,000 Americans die from accidental injuries each year. That’s one person every three minutes. More than 14,000 of those killed are kids under the age of 19.

Is YouTube to blame? (O’Neill, 2012, pp. 10–11)

### Interaction 1

The student reads the text relatively well, although she stumbles over the word *hazardous*.

Teacher: I noticed you had some trouble with the word *hazardous*. Do you know what that word means?

Student: Well, I’ve heard an expression, “hazardous to your health,” which means “bad for you.”

Teacher: That’s right. Can you give me some examples of things the article says are hazardous?

Student: I can’t remember.

Teacher: Why don’t you look back at the article? When you’re not sure what you just read, it’s always a good idea to go back and reread.

Student: [rereading] Oh, yeah, the article says that playing with fire, surfing on top of cars, shooting someone with paintball guns are all hazardous.

Teacher: Good. I like the way you reread the text to figure that out.

This is typical of many of the interactions we’ve seen between teachers and students. Although increased vocabulary knowledge is a crucial instructional goal, we would have encouraged that teacher to make a note of the possible confusion yet still ask a more cognitively challenging question, as seen in the following interaction.

### Interaction 2

Teacher: I noticed that you stumbled on a couple words, but I think it is possible to understand this article even if you don’t know 100% of the words. Can you talk me through what you just read? Help me to understand what YouTube has to do with kids doing dangerous things.

Student: Well, this says that kids are trying to imitate what they see on all those crazy shows, you know? So, they’ll do crazy things and videotape them, then post them on YouTube.

Teacher: Why is that a problem?

Student: Because sometimes they get hurt. In fact, this says a lot of kids get hurt.

Teacher: That’s true, but do you agree that YouTube could be to blame for kids getting hurt?

Student: I’m not sure. I kind of think that those TV shows that show people doing crazy things might be to blame. But I don’t really know.

Teacher: That’s OK. Keep reading, and as you read, think about whether or not the article provides any evidence that YouTube is partly responsible for the hazardous behavior of kids.

In this interaction, the teacher acknowledges the fact that the student struggled to read a couple words but doesn’t focus the interaction on that. Instead, she asks the student to think about the connection between YouTube and the dangerous behaviors of kids. That question really gets at the heart of what the YouTube article is about, and we would consider it to be in the level 4 category (cumulative understanding). Once the teacher determined that the student understood the big picture of the article, she followed up by asking the student if she agreed with the premise of the article. This level 5 question asked the student to use her own judgment while considering the



evidence provided. Although she answered, she was uncertain. Unfazed by her uncertainty, the teacher simply asked her to keep thinking about the question as she continued reading. This greater lesson, to critically consider written text, is a desired outcome for intermediate-grade readers. The goal is not a correct answer but rather deep consideration.

## Individualized Instruction and Beyond

Interactions like this second one help build students' understanding of the kind of thinking they will need to do to make deeper meaning of the texts they read, even if they aren't immediately able to do so. Teachers can ascertain their understanding and provide on-the-spot guidance to help them move beyond surface-level comprehension toward a more thorough understanding of what they read, as the Common Core Standards now demand. It might seem counterintuitive, but with some students (e.g., struggling readers, English learners), teachers may find they need to use texts at a lower level so decoding and vocabulary challenges are fewer and students can concentrate more on complex meaning making. We have observed that teachers are able to find texts that have significant comprehension challenges but do not challenge students' decoding or vocabulary knowledge.

Although it may not be easy to train ourselves to make these shifts in questioning, doing so elevates the nature of the discussions students have with their teachers about texts in individualized and small-group contexts. In addition, it can help shape more sophisticated talk about text during

whole-group discussion and as students talk to one another about what they have read.

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